
ARNOLD & PORTER

Rachel L. Adams, Ph.D.
Rachel_Adams@aporter.com

202.942.5512
202.942.5999 Fax

555 Twelfth Street, NW
Washington, DC 20004-1206

September 29, 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attn: Mail Stop Sequence

Re: U.S. Patent Application No. 08/657,749
Filed: May 30, 1996
Title: **Nucleic Acid Sequences Encoding a Plant Cytoplasmic
Protein Involved in Fatty Acyl-CoA Metabolism.**
Applicants: James G. METZ *et al.*
Atty. Docket No.: 16518.025

Sir:

In response to the telephone conference with the Examiner on September 17, 2003
informing Applicants that the Sequence Listing was noncompliant, Applicants submit herewith:

- (1) a corrected paper copy of the Sequence Listing (64 pages);
- (2) a copy of the Sequence Listing in Computer Readable Form (CRF) on a floppy diskette;
- (3) a Statement to Support Filing and Submission in Accordance with 37 C.F.R. §§ 1.821-1.825; and
- (4) a return postcard.

Applicants request that attached postcard be stamped with the filing date of these documents and returned to our courier.

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Commissioner for Patents
Atty. Docket No. 16518.025
September 29, 2003
Page 2

It is the undersigned's understanding, based on a September 17, 2003 conference with the Examiner, that the sequence listing filed on August 11, 2003 was a bona fide attempt to comply with the requirements outlined in the Office Action mailed March 11, 2003. Therefore, since this response is being submitted within thirty (30) days of the Examiner's notification of noncompliance (communicated by facsimile on September 17, 2003), it is believed that no fees are due at this time. However, if any fees are required in the present application, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter Deposit Account No. 50-2387, referencing matter number 16518.025. A duplicate copy of this letter is enclosed.

Respectfully submitted,



Rachel L. Adams (Reg. Attorney No. 54,660)
David R. Marsh (Reg. Attorney No. 41,408)
Holly Logue Prutz (Reg. Attorney No. 47,755)

Attachments

PC/MS-DOS PATENTIN 2.1
METZ, JAMES et al.
Appl. No.: 08/657,749
Filed: 30-MAY-1996
Data Rec: 23-SEP-2003
Atty. Dkt. No: 16518.025

09/17/03 WED 09:06 FAX 703 305 7401

GP 1600 FAX MACHINE 8

003

Page 1 of 8



1600

RAW SEQUENCE LISTING

DATE: 08/18/2003

PATENT APPLICATION: US/08/657,749C

TIME: 13:10:45

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Output Set: N:\CRF4\08182003\16517749C.raw

3 <110> APPLICANT: METZ, JAMES G.
4 LARDIZABAL, KATHRYN D.
5 LASSNER, MICHAEL
7 <120> TITLE OF INVENTION: NUCLEIC ACID SEQUENCES ENCODING A PLANT CYTOPLASMIC
8 PROTEIN INVOLVED IN FATTY ACYL-COA METABOLISM
10 <130> FILE REFERENCE: 16518.025
12 <140> CURRENT APPLICATION NUMBER: 08/657,749C
13 <141> CURRENT FILING DATE: 1996-05-30
15 <150> PRIOR APPLICATION NUMBER: PCT/US94/13686
16 <151> PRIOR FILING DATE: 1994-11-30
18 <150> PRIOR APPLICATION NUMBER: 08/265,047
19 <151> PRIOR FILING DATE: 1994-06-23
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22 <151> PRIOR FILING DATE: 1993-11-30
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25 <151> PRIOR FILING DATE: 1993-05-20
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30 <150> PRIOR APPLICATION NUMBER: 07/933,411
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63 Met Glu Glu Met Gly Ser Ile Leu Glu Phe Leu

Does Not Comply
Corrected Diskette Needed

pg 5-8

09/17/03 WED 09:06 FAX 703 305 7401

GP 1800 FAX MACHINE 8

004

Page 2 of 8

RAW SEQUENCE LISTING

DATE: 08/18/2003

PATENT APPLICATION: US/08/657,749C

TIME: 13:10:45

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80	60										65					70					
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83	leu	gly	ala	asn	phe	tyr	ser	phe	val	ser	glu	lys	val	thr	val	val					
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09/17/03 WED 09:06 FAX 703 305 7401

GP 1800 FAX MACHINE 8

004

Page 2 of 8

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/657,749C

DATE: 08/18/2003
TIME: 13:10:45

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Output Set : B:\CRF4\08182003\H657749C.raw

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67	15	20	25	
68	att ttt gtg gag aag gta ctg agg agt caa ccg aat gtg aag aaa ctc	208		
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72	tat ctt ctt ttg aga gca acc gat gac gag aca gct gct cta cgc ttg	256		
74	tyr leu leu leu arg ala thr asp asp glu thr ala ala leu arg leu			
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76	caa aat gag gtt ttt gga aaa gag ttg ttc aaa gtt ctg aaa caa aat	304		
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80	tta ggt gca aat ttc tat tcc ttt gta tca gaa aaa gtg act gta gta	352		
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91	110	115	120	
92	aca atc aac ttc att gaa agg tac gac gtg tct ctg ctt atc aac aca	496		
94	thr ile asn phe ile glu arg tyr asp val ser leu leu ile asn thr			
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96	tat gga gcc aag tat gtt ttg gac ttc gcg aag aag tgc aac aaa tta	544		
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100	aag ata ttt gtt cat gta tct act gct tat gta tct gga gag aaa aat	592		
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106	gly leu ile leu glu lys pro tyr tyr met gly glu ser leu asn gly			
107	175	180	185	
108	aga tta ggt ctg gac att aat gta gag aag aaa ctt gtg gag gca aaa	688		
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09/17/03 WED 09:07 FAX 703 305 7401

CP 1800 FAX MACHINE 8

005

Page 3 of 8

RAW SEQUENCE LISTING

DATE: 08/18/2003

PATENT APPLICATION: US/08/657,749C

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132 270 275 280
134 atc gat aat gta cct gta tat tat ggt aaa ggg aga ttg agg tgt atg 976
135 Ile Asp Asn Val Pro Val Tyr Tyr Gly Lys Gly Arg Leu Arg Cys Met
136 285 290 295
138 ctt tgc gga ccc agc aca ata att gac ctg ata ccg gca gat atg gtc 1024
139 Leu Cys Gly Pro Ser Thr Ile Ile Asp Leu Ile Pro Ala Asp Met Val
140 300 305 310 315
142 gtg sat gca acg ata gta gcc atg gtg gcg cac gca aac caa aga tac 1072
143 Val Asn Ala Thr Ile Val Ala Met Val Ala His Ala Asn Gln Arg Tyr
144 320 325 330
146 gta gag ccg gtg aca tac cat gtg gga tct tca gcg gcg aat cca atg 1120
147 Val Glu Pro Val Thr Tyr His Val Gly Ser Ser Ala Ala Asn Pro Met
148 335 340 345
150 aaa ctg agt gca tta cca gag atg gca cac cgt tac ttc acc aag aat 1168
151 Lys Leu Ser Ala Leu Pro Glu Met Ala His Arg Tyr Phe Thr Lys Asn
152 350 355 360
154 cca tgg atc aac ccg gat cgc aac cca gta cat gtg ggt ogg gct atg 1216
155 Pro Trp Ile Asn Pro Asp Arg Asn Pro Val His Val Gly Arg Ala Met
156 365 370 375
158 gtc ttc tcc tcc ttc tcc acc ttc cac ctt tat ctg acc ctt aat ttc 1264
159 Val Phe Ser Ser Phe Ser Thr Phe His Leu Tyr Leu Thr Leu Asn Phe
160 380 385 390 395
162 ctg ctt cct ttg aag gta ctg gag ata gca aat aca ata ttc tgc caa 1312
163 Leu Leu Pro Leu Lys Val Leu Glu Ile Ala Asn Thr Ile Phe Cys Gln
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166 tgg ttc aag ggt aag tac atg gat ctt aaa agg aag acg agg ttg ttg 1360
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168 415 420 425
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172 430 435 440
174 ttt gat gac atg aac act gag aag ttg cgg att gct gca aaa gaa agc 1456
175 Phe Asp Asp Met Asn Thr Glu Lys Leu Arg Ile Ala Ala Lys Glu Ser
176 445 450 455
178 ata gtt gaa gct gat atg ttt tac ttt gat ccc agg gca att aac tgg 1504
179 Ile Val Glu Ala Asp Met Phe Tyr Phe Asp Pro Arg Ala Ile Asn Trp
180 460 465 470 475
W--> 182 gaa gat tac ttc ttg aaa act cat ttc cca gga gtc gta gag cac gtt 1552
183 Glu Asp Tyr Phe Leu Lys Thr His Phe Pro Gly Val Val Glu His Val
184 480 485 490
186 ctt aac taaaagttac ggtacgaaaa tgagaagatt ggaatgcctg caccgaaagn 1608
187 Leu Asn
189 ncaacataaaa agcgtgggt aaagtcatgg tcaaaaaaga aatataatgc agttaggttt 1668
191 gtgttcagat ttgatccct tgcattgtta cttgtacttt tgatcttttt ctttttttat 1728
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09/17/03 WED 09:07 FAX 703 305 7401

GP 1800 FAX MACHINE 8

006

Page 4 of 8

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/657,749C

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209 35 40 45
211 Ala Thr Asp Asp Glu Thr Ala Ala Leu Arg Leu Gln Asn Glu Val Phe
212 50 55 60
214 Gly Lys Glu Leu Phe Lys Val Leu Lys Gln Asn Leu Gly Ala Asn Phe
215 65 70 75 80
217 Tyr Ser Phe Val Ser Glu Lys Val Thr Val Val Pro Gly Asp Ile Thr
218 85 90 95
220 Gly Glu Asp Leu Cys Leu Lys Asp Val Asn Leu Lys Glu Glu Met Trp
221 100 105 110
223 Arg Glu Ile Asp Val Val Val Asn Leu Ala Ala Thr Ile Asn Phe Ile
224 115 120 125
226 Glu Arg Tyr Asp Val Ser Leu Leu Ile Asn Thr Tyr Gly Ala Lys Tyr
227 130 135 140
229 Val Leu Asp Phe Ala Lys Lys Cys Asn Lys Leu Lys Ile Phe Val His
230 145 150 155 160
232 Val Ser Thr Ala Tyr Val Ser Gly Glu Lys Asn Gly Leu Ile Leu Glu
233 165 170 175
235 Lys Pro Tyr Tyr Met Gly Glu Ser Leu Asn Gly Arg Leu Gly Leu Asp
236 180 185 190
238 Ile Asn Val Glu Lys Lys Leu Val Gln Ala Lys Ile Asn Glu Leu Gln
239 195 200 205
241 Ala Ala Gly Ala Thr Glu Lys Ser Ile Lys Ser Thr Met Lys Asp Met
242 210 215 220
244 Gly Ile Glu Arg Ala Arg His Trp Gly Trp Pro Asn Val Tyr Val Phe
245 225 230 235 240
247 Thr Lys Ala Leu Gly Glu Met Leu Leu Met Gln Tyr Lys Gly Asp Ile
248 245 250 255
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251 260 265 270
253 Pro Phe Pro Gly Trp Val Glu Gly Val Arg Thr Ile Asp Asn Val Pro
254 275 280 285
256 Val Tyr Tyr Gly Lys Gly Arg Leu Arg Cys Met Leu Cys Gly Pro Ser
257 290 295 300
259 Thr Ile Ile Asp Leu Ile Pro Ala Asp Met Val Val Asn Ala Thr Ile
260 305 310 315 320
262 Val Ala Met Val Ala His Ala Asn Cln Arg Tyr Val Glu Pro Val Thr
263 325 330 335
265 Tyr His Val Gly Ser Ser Ala Ala Asn Pro Met Lys Leu Ser Ala Leu
266 340 345 350
268 Pro Glu Met Ala His Arg Tyr Phe Thr Lys Asn Pro Trp Ile Asn Pro
269 355 360 365

09/17/03 WED 09:07 FAX 703 305 7401

GP 1800 FAX MACHINE 8

007

Page 5 of 8

RAW SEQUENCE LISTING

DATE: 08/18/2003

PATENT APPLICATION: US/08/657,749C

TIME: 13:10:45

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Output Set: N:\CRF4\08182003\H657749C.raw

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274 Ser Thr Phe His Leu Tyr Leu Thr Leu Asn Phe Leu Leu Pro Leu Lys
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277 Val Leu Glu Ile Ala Asn Thr Ile Phe Cys Gln Trp Phe Lys Gly Lys
278 405 410 415
280 Tyr Met Asp Leu Lys Arg Lys Thr Arg Leu Leu Leu Arg Leu Val Asp
281 420 425 430
283 Ile Tyr Lys Pro Tyr Leu Phe Phe Gln Gly Ile Phe Asp Asp Met Asn
284 435 440 445
286 Thr Glu Lys Leu Arg Ile Ala Ala Lys Glu Ser Ile Val Glu Ala Asp
287 450 455 460
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314 1 5
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318 10 15 20
320 act atg acc gcc act ctc ccc aac ttc aag tcc tcc atc aac tta cac 152
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322 25 30 35
324 cac gtc aag ctc ggc tac cac tac tta atc tcc aat gcc ctc ttc ctc 200
325 His Val Lys Leu Gly Tyr His Tyr Leu Ile Ser Asn Ala Leu Phe Leu
326 40 45 50
328 gta ttc atc ccc ctt ttg ggc ctc gct tgg gcc cat ctc tcc tcc ttc 248
329 Val Phe Ile Pro Leu Leu Gly Leu Ala Ser Ala His Leu Ser Ser Phe
330 55 60 65 70
332 tgg gcc cat gac ttg tcc ctg ctc ttc gac ctc ctt cgc cgc aac ctc 296
333 Ser Ala His Asp Leu Ser Leu Leu Phe Asp Leu Leu Arg Arg Asn Leu
334 75 80 85
336 ctc cct gtt gtc gtt tgt tct ttc ctc ttc gtt tta tta gca acc cta 344
337 Leu Pro Val Val Val Cys Ser Phe Leu Phe Val Leu Leu Ala Thr Leu
338 90 95 100

what about "n" at location 737?

(see p.6)

09/17/03 WED 09:08 FAX 703 305 7401

GP 1800 FAX MACHINE 8

008

08/657,749C 6

agc ttg ttt aac cca acg ccg tgg ctg tca tcc atg ata gtt aac cat 728
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 215 220 225 230
 tac aag cca agg ggt aat ata ctt agc tat aat ctt ggt ggc atg ggt 776
 Tyr Lys Asa Arg Gly Asn Ile Leu Ser Tyr Asa Leu Gly Gly Met Gly
 235 240 245

"h" location

see p. 7 for more errors

09/17/03 WED 09:08 FAX 703 305 7401

GP 1800 FAX MACHINE 8

009

08/657,749C 7

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Ser Ser Ile Asn Leu His His Val Lys Leu Gly Tyr His Tyr Leu Ile
35 40 45
Ser Asn Ala Leu Phe Leu Val Phe Ile Pro Leu Leu Gly Leu Ala Ser
50 55 60
Ala His Leu Ser Ser Phe Ser Ala His Asp Leu Ser Leu Leu Phe Asp
65 70 75 80
Leu Leu Arg Arg Asn Leu Leu Pro Val Val Val Cys Ser Phe Leu Phe
85 90 95
Val Leu Leu Ala Thr Leu His Phe Leu Thr Arg Pro Arg Asn Val Tyr
100 105 110
Leu Val Asp Phe Gly Cys Tyr Lys Pro Gln Pro Asn Leu Met Thr Ser
115 120 125
His Glu Met Phe Met Asp Arg Thr Ser Arg Ala Gly Ser Phe Ser Lys
130 135 140
Glu Asn Ile Glu Phe Gln Arg Lys Ile Leu Glu Arg Ala Gly Met Gly
145 150 155 160
Arg Glu Thr Tyr Val Pro Glu Ser Val Thr Lys Val Pro Ala Glu Pro
165 170 175
Ser Ile Ala Ala Ala Arg Ala Gln Ala Glu Glu Val Met Tyr Gly Ala
180 185 190
Ile Asp Glu Val Leu Glu Lys Thr Gly Val Lys Pro Lys Gln Ile Gly
195 200 205
Ile Leu Val Val Xaa Cys Ser Leu Phe Asn Pro Thr Pro Ser Leu Ser
210 215 220
Ser Met Ile Val Asn His Tyr Lys Xaa Arg Gly Asn Ile Leu Ser Tyr
225 230 235 240

what about Xaa at location 233?

see
below

↑

see p.8

09/17/03 WED 09:08 FAX 703 305 7401

GP 1800 FAX MACHINE 8

010

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/18/2003
PATENT APPLICATION: US/08/657,749C TIME: 13:10:46

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Output Set: N:\CRF4\08182003\H657749C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:3; N Pos. 676,737
Seq#:3; Xaa Pos. 213,233
Seq#:4; Xaa Pos. 213,233
Seq#:22; N Pos. 345
Seq#:22; Xaa Pos. 102
Seq#:23; Xaa Pos. 102
Seq#:24; N Pos. 155,217
Seq#:24; Xaa Pos. 51,72
Seq#:25; Xaa Pos. 51,72
Seq#:31; Xaa Pos. 3,10
Seq#:35; Xaa Pos. 4,5
Seq#:36; Xaa Pos. 7,8,11
Seq#:38; Xaa Pos. 1,17
Seq#:39; Xaa Pos. 7
Seq#:42; N Pos. 9,12,15
Seq#:43; N Pos. 15
Seq#:46; Xaa Pos. 3
Seq#:47; N Pos. 30,33
Seq#:49; N Pos. 30,33,36
Seq#:50; N Pos. 29,32,35
Seq#:52; N Pos. 39
Seq#:53; N Pos. 27

*Please ensure these n/Xaa
locations are explained*

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